THREE UNDESCRIBED ERIOPTERINE CRANE-FLIES FROM CALIFORNIA (TIPULIDÆ, DIPTERA)

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Dasymolophilus subnudus Alexander, sp. n.

Male. Length about 2.5 mm.; wing, 3.2 mm.

General coloration of virtually the entire body, including the abdomen and hypopygium, dark brown. Mesonotum dark brown, the scutellum a trifle paler.

Wings longer and narrower than in *ursinus*, the anal region greatly reduced; wings tinged with brown, the veins and macrotrichiæ darker. Macrotrichiæ in the cells beyond the cord very sparse, there being none in the distal half, or more, of cells R_3 , R_4 , M_2 or M_4 , and scarcely any in cells R_5 or M_3 ; basad of the cord there is a sparse line of trichiæ along the centers of the cells, as in *ursinus*. Venation: Cell R_3 more extensively sessile than in *ursinus*, the inner end lying considerably more proximad than either cell R_4 or R_5 ; cell M_3 longer and narrower, widest near midlength; vein 2nd A relatively short, only about two-fifths the length of vein 1st A, cell 2nd A being very narrow. In *ursinus*, vein 2nd A is longer, approximately one-half the length of vein 1st A.

Male hypopygium with the dististyle slightly subterminal in position, long, strongly curved to the acute tip, the basal half more swollen; before the tip on the concave face with about three small, acute teeth, shorter and less conspicuous than in *ursinus*, the long narrow apex along the outer convex margin with a series of barely indicated appressed spinulæ. Besides the long sinuous ædeagus, there is a more dorsal elongate blackened structure that is densely set along its length with subappressed spinulæ.

Holotype, &, Berkeley, California, May 7, 1915 (M. C. Van Duzee). Paratopotype, a fragmentary male. Type in the Van Duzee collection.

I am much indebted to Mr. Van Duzee for the loan of this specimen. The genus Dasymolophilus Goetghebuer is certainly distinct from Molophilus, in several respects pointing more directly to the essentially Australasian genus Tasiocera Skuse. Besides the genotype, murinus Meigen, of Europe, two species occur in Eastern North America (ursinus Osten Sacken and niphadias Alexander). Still another perfectly typical species, circumcinctus Meunier, is found in the Baltic Amber. It is still

uncertain whether the recently described British species, pusillus Edwards, known only from the female sex, belongs to Dasy-molophilus, the cells of the wing being glabrous. The species described above departs from the characters of the genus in the subglabrous condition of most of the cells of the wing that lie beyond the cord.

Molophilus sackenianus Alexander, sp. n.

Male. Length about 4.5 mm.; wing about 6 mm.

Antennæ short, pale yellowish brown. General coloration brownish gray, the midline of the præscutum somewhat darker brown; pseudosutural foveæ dark. Halteres pale. Wings with a brownish iridescent tinge, the costal fringe dark brown, the remaining trichiæ of the wing more yellowish, conspicuous. Abdomen dark brown, the hypopygium yellow, the abdomen clothed with long yellow setæ. Male hypopygium unusually large and conspicuous. Basistyles very long and narrow, deeply divided, the dorsal lobe slender, the ventral lobe much longer, expanded at tip and here produced into an acute chitinized spine that is directed dorsad and mesad, the apex of the lobe beyond this spine with a dense erect black pubescence. Basal dististyle a cylindrical black rod that is strongly curved at apex and here provided with microscopic appressed spinulæ. Outer dististyle a little shorter and more slender, sinuous, very gradually narrowed to the acute blackened apex. Ædeagus long and slender.

Holotype, &, San Rafael, California, March 31 (Osten Sacken). Type in the Osten Sacken collection, Museum of Camparative Zoology.

This interesting species is named in honor of the great pioneer student of the Tipulidæ, Baron C. R. Osten Sacken. The species is discussed by Osten Sacken (Western Diptera, p. 200, 1877), as forcipula, to which species it is not closely related. It is certain that Osten Sacken had at least two species of Molophilus confused in this material of the "Western Diptera," the only one that is certainly sackenianus being the holotype male described. I am indebted to Dr. Nathan Banks for the opportunity of studying this, and other Sackenian types, while on a recent visit to Cambridge.

Gonomyia (Progonomyia) hesperia Alexander, sp. n.

Male. Length, 4.4-4.8 mm.; wing, 4.8-5.5 mm.

Rostrum and palpi dark brown. Antennæ brownish black throughout, the flagellar segments relatively elongate. Head dark gray, the anterior vertex suffused with obscure fulvous.

Pronotum brown with a slightly elevated yellowish median area. Lateral pretergites brighter yellow. Mesonotal præscutum light brown with four darker brown stripes, the narrow intermediate pair confluent in front, narrowly separated behind, not reaching the suture; lateral stripes paler brown, in cases relatively indistinct; lateral margins and humeral region yellowish; pseudosutural foveæ large, shiny dark brown to black; scutum dark brown, the median area broadly testaceous, margined laterally with yellow; posterior lateral angles of scutal lobes yellow; scutellum dark brownish gray, narrowly divided medially by a capillary pale line; postnotum brown, sparsely pruinose, the antero-lateral margins of the mediotergite and the adjacent margin of the pleurotergite restrictedly yellow. Pleura brown, sometimes paler ventrally, with a narrow obscure yellow longitudinal stripe extending from behind the fore coxa, passing above the middle coxa, ending above the posterior coxa. Halteres pale, the knobs dark brown. Legs with the coxæ pale brownish testaceous; trochanters obscure brownish yellow; femora yellowish brown; tibiæ brown, their tips and the tarsi brownish black. Wings subhyaline, the stigma relatively small, elongate-oval to broadly triangular, pale brown; veins dark brown. Venation: Sc_1 ending about opposite two-thirds the length of Rs, Sc alone a little longer than m-cu; r preserved but faint, placed at midlength of the stigma and just before fork of R_{2+3} .

Abdominal tergites brown, the sternites somewhat more bicolorous, brighter medially, narrowly darker laterally and subapically, the caudal margin of the intermediate sternites narrowly yellow; hypopygium more yellowish. Male hypopygium with the tips of the basistyles produced beyond the level of the insertion of the dististyles into a conical fleshy lobe with long setæ. Outer dististyle elongate, sinuous, gradually narrowed to the acute black tip, the base expanded, the lower surface of the style with conspicuous setæ. Inner dististyle a straight rod, the basal half stouter, setiferous, on the outer face with a small blackened spine; beyond this spine the apical half of the style is prolonged into a slender rod, the blackened acute apex slightly curved and with a few microscopic setulæ before tip.

Holotype, ô, Riverside, California, August 24, 1926, at light during a very hot spell (T. D. A. Cockerell). Paratopotype, ô. Type in the writer's collection.

I am greatly indebted to Professor Cockerell for this and other material that he has most kindly sent me in the past. The only other nearctic species of the subgenus is slossonæ Alexander, ranging from South Carolina southward into the neotropical regions. The present species differs from all of the numerous described forms in the unusual degree of hairiness of the dististyles of the hypopygium.